

WHAT IS CLAIMED IS:

1 1. A method for providing information on a network storage system,
2 comprising:
3 receiving information from at least one host system identifying storage units the
4 host systems access through at least one identified storage system;
5 probing the at least one storage system to determine storage units available
6 through the storage system and an identifier of the storage system; and
7 processing the information received from the host systems on storage units the
8 host systems access and the information probed from the at least one storage system on
9 the storage units available through the storage system to determine an association of host
10 systems to storage units for the at least one storage system.

1 2. The method of claim 1, wherein the information from the host systems is
2 gathered by an agent program executing in each host systems that queries the host system
3 to determine the storage units the host system is capable of accessing and the at least one
4 storage system through which the storage units are accessed, and wherein the agent
5 program transmits the information on the accessible storage units and the at least one
6 determined storage system to a monitor program.

1 3. The method of claim 2, wherein the monitor program further performs the
2 operations of probing the at least one storage system and processing the information
3 received from the agents executing in the host systems and the at least one storage
4 system.

1 4. The method of claim 2, wherein the agent program determines the
2 accessible storage units and the at least one storage system by issuing at least one inquiry
3 command that is a member of set of an industry standard storage interface.

1 5. The method of claim 4, wherein the industry standard storage interface
2 comprises the Small Computer System Interface (SCSI) and wherein the inquiry

3 command comprises a SCSI inquiry command and wherein the storage units comprise
4 Logical Unit Numbers (LUNs).

1 6. The method of claim 2, wherein the agent program determines the
2 accessible storage units and the at least one storage system by:
3 issuing a first inquiry command to determine a vendor and model number of the
4 storage system including the accessible at least one storage unit;
5 determining whether the determined vendor and model number are for a
6 recognizable storage system; and
7 issuing a second inquiry command to determine the at least one accessible storage
8 unit and the identifier of the storage system having the accessible storage unit if the
9 determined vendor and model number are for one recognizable storage system.

1 7. The method of claim 1, further comprising:
2 maintaining in a data repository: (i) host system information including the
3 information received from the host systems identifying the host system and the storage
4 units accessible from that host system and (ii) storage system information probed from
5 the at least one storage system identifying the storage system and the storage units
6 available at through that storage system.

1 8. The method of claim 7, further comprising:
2 maintaining host/storage unit assignment information indicating for one storage
3 system the storage units available through that storage system and the host systems that
4 access the available storage units, wherein the host/storage unit assignment information is
5 generated by processing the host system and storage system information in the data
6 repository.

1 9. The method of claim 1, wherein probing the at least one storage system
2 comprises using an industry standard storage management interface to access information
3 from the storage system.

1 10. The method of claim 1, wherein the information received from the host
2 systems indicates an operating system used by the host system, further comprising:
3 generating information on the association of the host systems to storage units for
4 at least one storage system; and
5 generating information on the operating system used by each host system
6 associated with the storage units.

1 11. A system in communication with at least one storage system and at least
2 one host system over a network, wherein the at least one storage system controls access
3 to storage units, comprising:
4 a processing unit; and
5 code executed by the processing unit to perform:
6 (i) receiving information from the host systems identifying storage units
7 the host systems access through at least one identified storage system;
8 (ii) probing the at least one storage system to determine storage units
9 available through the storage system and an identifier of the storage system; and
10 (iii) processing the information received from the host systems on storage
11 units the host systems access and the information probed from the at least one
12 storage system on the storage units available through the storage system to
13 determine an association of host systems to storage units for the at least one
14 storage system.

1 12. The system of claim 1, wherein the code executed by the processing unit
2 comprises a monitor program, wherein the information from the host systems is gathered
3 by an agent program executing in each host systems that queries the host system to
4 determine the storage units the host system is capable of accessing and the at least one
5 storage system through which the storage units are accessed, and wherein the agent
6 program transmits the information on the accessible storage units and the at least one
7 determined storage system to the monitor program.

1 13. The system of claim 12, wherein the monitor program further performs the
2 operations of probing the at least one storage system and processing the information
3 received from the agents executing in the host systems and the at least one storage
4 system.

1 14. The system of claim 12, wherein the agent program determines the
2 accessible storage units and the at least one storage system by issuing at least one inquiry
3 command that is a member of set of an industry standard storage interface.

1 15. The system of claim 14, wherein the industry standard storage interface
2 comprises the Small Computer System Interface (SCSI) and wherein the inquiry
3 command comprises a SCSI inquiry command and wherein the storage units comprise
4 Logical Unit Numbers (LUNs).

1 16. The system of claim 12, wherein the agent program determines the
2 accessible storage units and the at least one storage system by:
3 issuing a first inquiry command to determine a vendor and model number of the
4 storage system including the accessible at least one storage unit;
5 determining whether the determined vendor and model number are for a
6 recognizable storage system; and
7 issuing a second inquiry command to determine the at least one accessible storage
8 unit and the identifier of the storage system having the accessible storage unit if the
9 determined vendor and model number are for one recognizable storage system.

1 17. The system of claim 12, further comprising:
2 a data repository including: (i) host system information including the information
3 received from the host systems identifying the host system and the storage units
4 accessible from that host system and (ii) storage system information probed from the at
5 least one storage system identifying the storage system and the storage units available at
6 through that storage system.

1 18. The system of claim 17, further comprising:
2 host/storage unit assignment information indicating for one storage system the
3 storage units available through that storage system and the host systems that access the
4 available storage units, wherein the host/storage unit assignment information is generated
5 by processing the host system and storage system information in the data repository.

1 19. The system of claim 12, wherein probing the at least one storage system
2 comprises using an industry standard storage management interface to access information
3 from the storage system.

1 20. The system of claim 12, wherein the information received from the host
2 systems indicates an operating system used by the host system, wherein the code is
3 further executed to perform:
4 generating information on the association of the host systems to storage units for
5 at least one storage system; and
6 generating information on the operating system used by each host system
7 associated with the storage units.

1 21. An article of manufacture for providing information on a network storage
2 system controlling access to storage units and host systems, wherein the article of
3 manufacture causes operations to be performed, the operations comprising:
4 receiving information from host systems identifying storage units the host
5 systems access through at least one identified storage system;
6 probing the at least one storage system to determine storage units available
7 through the storage system and an identifier of the storage system; and
8 processing the information received from the host systems on storage units the
9 host systems access and the information probed from the at least one storage system on
10 the storage units available through the storage system to determine an association of host
11 systems to storage units for the at least one storage system.

1 22. The article of manufacture of claim 21, wherein the information from the
2 host systems is gathered by an agent program executing in each host systems that queries
3 the host system to determine the storage units the host system is capable of accessing and
4 the at least one storage system through which the storage units are accessed, and wherein
5 the agent program transmits the information on the accessible storage units and the at
6 least one determined storage system to a monitor program.

1 23. The article of manufacture of claim 22, wherein the monitor program
2 further performs the operations of probing the at least one storage system and processing
3 the information received from the agents executing in the host systems and the at least
4 one storage system.

1 24. The article of manufacture of claim 22, wherein the agent program
2 determines the accessible storage units and the at least one storage system by issuing at
3 least one inquiry command that is a member of set of an industry standard storage
4 interface.

1 25. The article of manufacture of claim 24, wherein the industry standard
2 storage interface comprises the Small Computer System Interface (SCSI) and wherein the
3 inquiry command comprises a SCSI inquiry command and wherein the storage units
4 comprise Logical Unit Numbers (LUNs).

1 26. The article of manufacture of claim 21, wherein the agent program
2 determines the accessible storage units and the at least one storage system by:
3 issuing a first inquiry command to determine a vendor and model number of the
4 storage system including the accessible at least one storage unit;
5 determining whether the determined vendor and model number are for a
6 recognizable storage system; and

7 issuing a second inquiry command to determine the at least one accessible storage
8 unit and the identifier of the storage system having the accessible storage unit if the
9 determined vendor and model number are for one recognizable storage system.

1 27. The article of manufacture of claim 21, wherein the operations further
2 comprise:

3 maintaining in a data repository: (i) host system information including the
4 information received from the host systems identifying the host system and the storage
5 units accessible from that host system and (ii) storage system information probed from
6 the at least one storage system identifying the storage system and the storage units
7 available at through that storage system.

1 28. The article of manufacture of claim 27, wherein the operations further
2 comprise:

3 maintaining host/storage unit assignment information indicating for one storage
4 system the storage units available through that storage system and the host systems that
5 access the available storage units, wherein the host/storage unit assignment information is
6 generated by processing the host system and storage system information in the data
7 repository.

1 29. The article of manufacture of claim 21, wherein probing the at least one
2 storage system comprises using an industry standard storage management interface to
3 access information from the storage system.

1 30. The article of manufacture of claim 21, wherein the information received
2 from the host systems indicates an operating system used by the host system, further
3 comprising:
4 generating information on the association of the host systems to storage units for
5 at least one storage system; and

- 6 generating information on the operating system used by each host system
- 7 associated with the storage units.